



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,951	03/07/2005	Janne Muhonen	59643.00579	8417
32294	7590	03/30/2007		
SQUIRE, SANDERS & DEMPSEY L.L.P.			EXAMINER	
14TH FLOOR			BROOKS, SHANNON	
8000 TOWERS CRESCENT				
TYSONS CORNER, VA 22182			ART UNIT	PAPER NUMBER
			2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/522,951	MUHONEN, JANNE
	Examiner Shannon R. Brooks	Art Unit 2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 March 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 29-67 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 29-67 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 07 March 2005 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

***Response to Amendment***

1. Acknowledgement is made of amendments including the addition of new claims.

***Response to Arguments***

2. Applicant's arguments with respect to claims 29-67 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 29-67** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson (US 6023624) in view of Kallin (US 6058308).

Consider **Claim 29**, Hanson clearly teaches and discloses a method , comprising:  
receiving a request for a current location of a mobile station (**Col. 1, lines 42-48**) in a mobile communication system; determining a time at which a last known location of the mobile station was determined (**Col. 1, line 64-67**); comparing the time to a threshold time limit (**Col. 4, lines**

Art Unit: 2617

1-5), and, in response to the said step of comparing, finding, as the current location, the last known location if the time is within the threshold time limit (**Col. 4, lines 7-12**).

Hansen teaches finding as a current location. However, Kallin teaches providing as a current location (**Col. 2, lines 28-30**).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Kallin into Hansen in order to indicate location (**Col. 2, line 28-30**).

Consider **Claim 41**, Hanson clearly teaches and discloses a method, comprising: receiving at a network element a request from an application for a current location of a mobile station (**Col. 3, lines 63-64**) in a mobile communication system, determining, at the network element, a time at which a last known location of the mobile station was determined (**Col. 3, line 63-67 and Col. 4, line 1**); comparing, at the network element, the time to a threshold time limit (**Col. 4, lines 1-5**); and, in response to the comparing, finding for the application, as the current location, the last known location if the time is within the threshold time limit (**Col. 4, lines 7-12**).

Hansen teaches finding as a current location. However, Kallin teaches providing as a current location (**Col. 2, lines 28-30**).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Kallin into Hansen in order to indicate location (**Col. 2, line 28-30**).

Consider **Claim 42**, Hanson clearly teaches and discloses a network element comprising: means for receiving a request for a current location of a mobile station (**Col. 3, line 63-64**), means for determining a time at which a last known location of the mobile station was

determined (**Col. 4, lines 1-5**); means for comparing the time to a threshold time limit (**Fig. 5, Blocks 531, 533, 535, and 505**); and means for finding, as the current location, in response to the comparing, the last known location if the time is within the threshold time limit (**Fig. 5, Block 507**).

Hansen teaches finding as a current location. However, Kallin teaches providing as a current location (**Col. 2, lines 28-30**).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Kallin into Hansen in order to indicate location (**Col. 2, line 28-30**).

Consider **Claim 53**, Hanson clearly teaches and discloses a mobile communication system comprising an application configured to provide location dependent services and to generate a location request for a user equipment (**Figs. 1 and 3-5**); a network element configured to receive the request for a current location of a mobile station (**Col. 3, lines 63-64**), a network element configured to determine a time at which a last known location of the mobile station was determined and to comparing the time to a threshold time limit (**Fig. 1, Data Table**); and a network element (**read as call processor**) (**Fig. 1, Block 30**) configured to find, as the current location, in response to the comparing, the last known location if the time is within the threshold time limit.

Hansen teaches finding as a current location. However, Kallin teaches providing as a current location (**Col. 2, lines 28-30**).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Kallin into Hansen in order to indicate location (**Col. 2, line 28-30**).

Consider **Claim 57**, Hansen teaches a network element comprising:

a receiving unit configured to receive a request for a current location of a mobile station in a mobile communication system (**Col. 2, lines 33-67, Col. 3, lines 1-67, Col. 4, lines 1-67, Col. 5, lines 1-23, and Fig. 5**);

a determining unit configured to determine a time at which a last known location of the mobile station was determined (**Col. 3, lines 7-67, Col. 4, lines 1-67, and Col. 5, lines 1-23**);

a comparing unit configured to compare the time to a threshold time limit (**Col. 3, lines 7-21, and Fig. 5**); and

a finding unit configured to find, as the current location, in response to the comparing, the last known location if the time is within the threshold time limit (**Fig. 5, and Col. 3, lines 50-67, Col. 4, lines 1-67, and Col. 5, lines 1-23**).

Hansen teaches finding as a current location. However, Kallin teaches providing as a current location (**Col. 2, lines 28-30**).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Kallin into Hansen in order to indicate location (**Col. 2, line 28-30**).

Consider **Claim 30** Hanson clearly teaches and discloses a method according to claim 29 further comprising: determining a current location of the mobile station if the time is not within

the threshold limit (**read as flood paging**)(**Col. 4, line 5 and Fig. 5, Block 521**); and finding, as the current location, the obtained current location (**Col. 2, lines 7-19**).

Consider **Claim 31**, Hanson clearly teaches and discloses a method according to claim 29 wherein the comparing the time to the threshold time limit is dependent upon the status (**read as registered**)(**Col. 4, line 2**) of the mobile station.

Consider **Claim 32**, Hanson clearly teaches and discloses a method according to claim 31 wherein if the mobile station is active the comparing is disabled (**read as initial restricted paging is enabled**)(**Col. 5, line 36**) and a current location is determined for the mobile station (**read as 3 or even more most recent locations**)(**Col. 5, lines 34-35**).

Consider **Claim 33**, Hansen teaches a method wherein the mobile has a status except that it does not specifically teach wherein if the status of the mobile station is **idle**, the comparing is enabled.

However, Kallin clearly teaches wherein if the status of the mobile station is idle (**Col. 2, lines 27-31**) the comparing step is enabled.

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Kallin into Hansen to provide the network with an indication of the position at which the mobile is located.

Consider **Claim 34**, Hanson clearly teaches and discloses a method according to claim 30, wherein if a current location is not provided, the last known location is provided as the current location (**read as last registration**)(**Col. 1, line 62**).

Consider **Claim 35**, Hanson clearly teaches and discloses a method according to claim 29 further comprising storing the last known location of a mobile station together with a time associated with the last known location (**Fig. 1, Data Table**).

Consider **Claim 36**, Hanson clearly teaches and discloses a method according to claim 29 further comprising storing the threshold time limit (**read as elapsed time**) (**Col.1, line 65**).

Consider **Claim 37**, Hanson clearly teaches and discloses a method further comprising dynamically adjusting the threshold time limit (**Fig. 5, Blocks 531, 533, 535, and 505, Col. 3, lines 50-67, and Col. 4, lines 1-44**).

Consider **Claim 38**, Hanson clearly teaches and discloses a method according to claim 29 wherein the threshold time limit is set by a network operator (**Col. 5, lines 29-31**).

Consider **Claim 39**, Hanson clearly teaches and discloses a method according to claim 29 wherein the threshold limit is included in the request for the current location (**Col. 4, lines 1-12**).

Consider **Claim 40**, Hanson clearly teaches and discloses a method according to claim 29 wherein the time is an elapsed time (**Col. 1, line 65**).

Consider **Claim 43**, Hanson clearly teaches and discloses a network element according to claim 42 further comprising means for determining a current location for the mobile station if the time is not within the threshold limit (**Fig. 5, Blocks 513, 517, and 521**); wherein the means for finding is adapted to provide, as the current location, the obtained current location (**Fig. 5, Blocks 513, 517, and 521**).

Consider **Claim 44**, Hanson clearly teaches and discloses a network element according to claim 42 wherein the means for comparing the time to the threshold time limit is responsive to a signal (**read as registration**)(**Col. 2, line 1**) indicating the status of the mobile station.

Consider **Claim 45**, Hanson clearly teaches and discloses a network element according to claim 44 responsive to said signal indicating that the mobile station is active the comparing means is disabled (**read as initial restricted paging**)(**Col. 5, line 36**) and a current location is determined for the mobile station (**read as three or more recent locations**)(**Col. 5, line 36**).

Consider **Claim 46**, Hansen teaches a network element wherein responsive to said signal except that it does not specifically teach a network element wherein responsive to said signal indicating that the mobile station is **idle**, the comparing means is enabled.

However, Kallin clearly teaches a network element wherein responsive to said signal indicating that the mobile station is **idle** (**Col. 2, lines 27-31**) the comparing step is enabled.

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Kallin into Hansen to provide the network with an idle indication to allow registration of the mobile.

Consider **Claim 47**, Hanson clearly teaches and discloses a network element according to claim 43, wherein if a current location is not provided, the network element is adapted to provide the last known location is provided as the current location (**read as last registration or location**)(**Col. 1, line 62**).

Consider **Claim 48**, Hanson clearly teaches and discloses a network element according to claim 42 further comprising means for storing the last known location of a mobile station together with a time associated with the last known location (**Fig. 1, Data Table**).

Art Unit: 2617

Consider **Claim 49**, Hanson clearly teaches and discloses a network element according to claim 42 further comprising means for storing the threshold time limit (**Col. 3, lines 7-21**).

Consider **Claim 50**, Hanson clearly teaches and discloses a network element according to claim 42 further comprising means for dynamically adjusting the threshold time limit (**Col. 5, lines 29-31**).

Consider **Claim 51**, Hanson clearly teaches and discloses a network element according to claim 42 wherein the threshold time limit is set by a network operator (**Col. 5, lines 29-31**).

Consider **Claim 52**, Hanson clearly teaches and discloses a network element according to claim 42 wherein the threshold time limit is included in the request for a current location (**Fig. 5, Blocks 531, 533, 535, and 505**).

Consider **Claim 54**, Hansen teaches a mobile communication system, wherein the network element for determining the time at which the last known location was determined except that it does not teach wherein the network element for determining the time at which the last known location was determined includes a **visitor location register**.

However Kallin teaches a mobile communication system, wherein the network element for determining the time at which the last known location was determined includes a **visitor location register Col.2, lines 60-63**.

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Kallin into Hansen to provide a network element to receive a registration report of the mobile.

Consider **Claim 55**, Hanson clearly teaches and discloses a mobile communication system according to claim 53 wherein the system implements a CAMEL framework (**Figs. 1 and 3-5**).

Consider **Claim 56**, Hanson clearly teaches and discloses a mobile communication system according to claim 53 wherein the system implements location services (**Col. 1, lines 56-67 and Col. 2, lines 1-18**).

Consider **Claim 58**, Hansen teaches a network element further comprising a determining unit configured to determine a current location for the mobile station if the time is not within the threshold limit (**Col. 3, lines 7-67, Col. 4, lines 1-67, and Col. 5, lines 1-23 and Fig. 5**); wherein the finding unit is configured to find, as the current location, the obtained current location (**Col. 3, lines 7-67, Col. 4, lines 1-67, and Col. 5, lines 1-23 and Fig. 5**).

Consider **Claim 59**, Hansen teaches a network element wherein the comparing unit is responsive to a signal indicating the status of the mobile station (**Col. 2, lines 33-67, Col. 3, lines 1-67, Col. 4, lines 1-67, Col. 5, lines 1-23, and Fig. 5**).

Consider **Claim 60**, Hansen teaches a network element responsive to said signal indicating that the mobile station is active the comparing unit is disabled and a current location is determined for the mobile station (**read as set for restrictive paging of a recent location, Col. 5, lines 24-39**).

Consider **Claim 61**, Hansen teaches a network element except that it does not specifically teach a network element wherein responsive to said signal indicating that the mobile station is idle, the comparing unit is enabled.

However, Kallin teaches a network element wherein responsive to said signal indicating that the mobile station is idle, the comparing unit is enabled (**Col. 2, lines 27-31**).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Kallin into Hansen in order to provide an indication of the position of the mobile (**Col. 2, lines 27-31**).

Consider **Claim 62**, Hansen teaches a network element, wherein, except that it does not specifically teach a network element wherein if a current location is not provided, the network element is configured to provide the last known location as the current location.

However, Kallin teaches a network element wherein if a current location is not provided, the network element is configured to provide the last known location as the current location (**Col. 15, lines 57-61**).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Kallin into Hansen in order to handle a situation where there is no response to a page (**Col. 15, lines 57-61**).

Consider **Claim 63**, Hansen teaches a network element further comprising a storing unit configured to store the last known location of a mobile station together with a time associated with the last known location (**Fig. 1, Block 30, and Col. 1, lines 7-21**).

Consider **Claim 64**, Hansen teaches a network element further comprising a storing unit configured to store the threshold time limit (**Fig. 1, Block 30, and Col. 1, lines 7-21**).

Consider **Claim 65**, Hansen teaches a network element further comprising an adjusting unit configured to dynamically adjust the threshold time limit (**Col. 3, lines 7-67, Col. 4, lines 1-67, Col. 5, lines 1-23, and Fig. 5**).

Consider **Claim 66**, Hansen teaches a network element wherein the threshold time limit is set by a network operator (**Col. 5, lines 24-39**).

Consider **Claim 67**, Hansen teaches a network element wherein the threshold time limit is included (**read as considered**) in the request for a current location (**Col. 3, lines 7-67, Col. 4, lines 1-67, Col. 5, lines 1-23, and Fig. 5**).

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shannon R. Brooks whose telephone number is (571) 270-1115. The examiner can normally be reached on 7:30a.m. to 5p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shannon Brooks

March 26, 2006

*Nick Corsaro*  
NIICK CORSARO  
PERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600